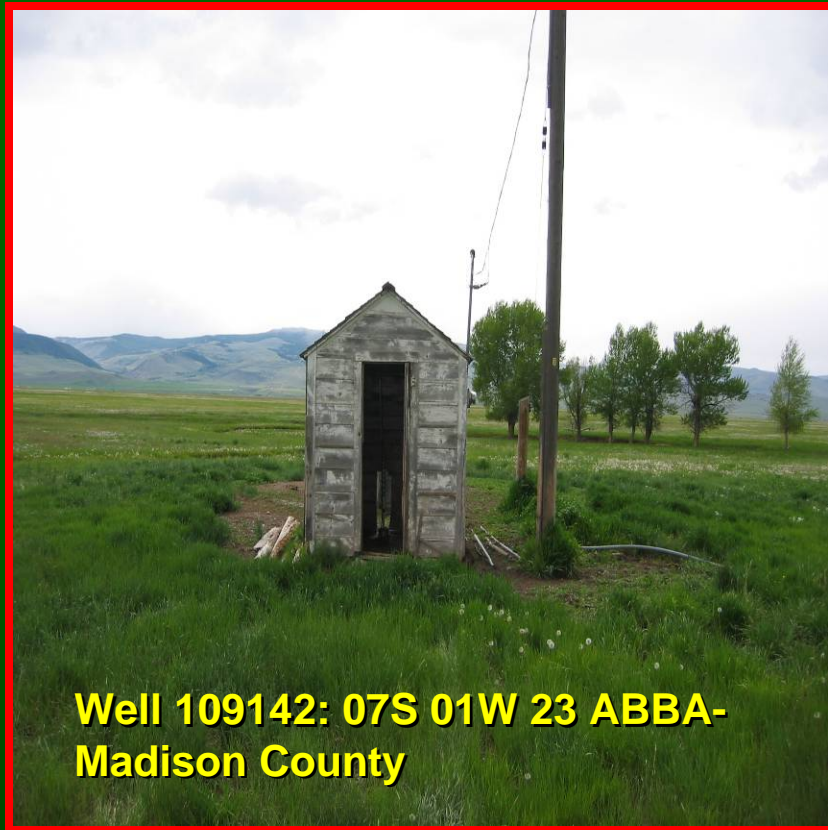
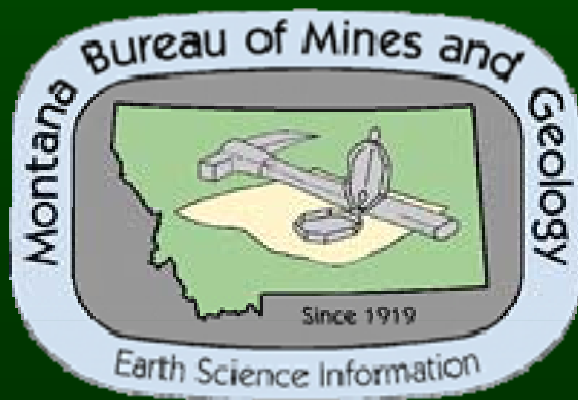


# Montana Ground- Water Assessment

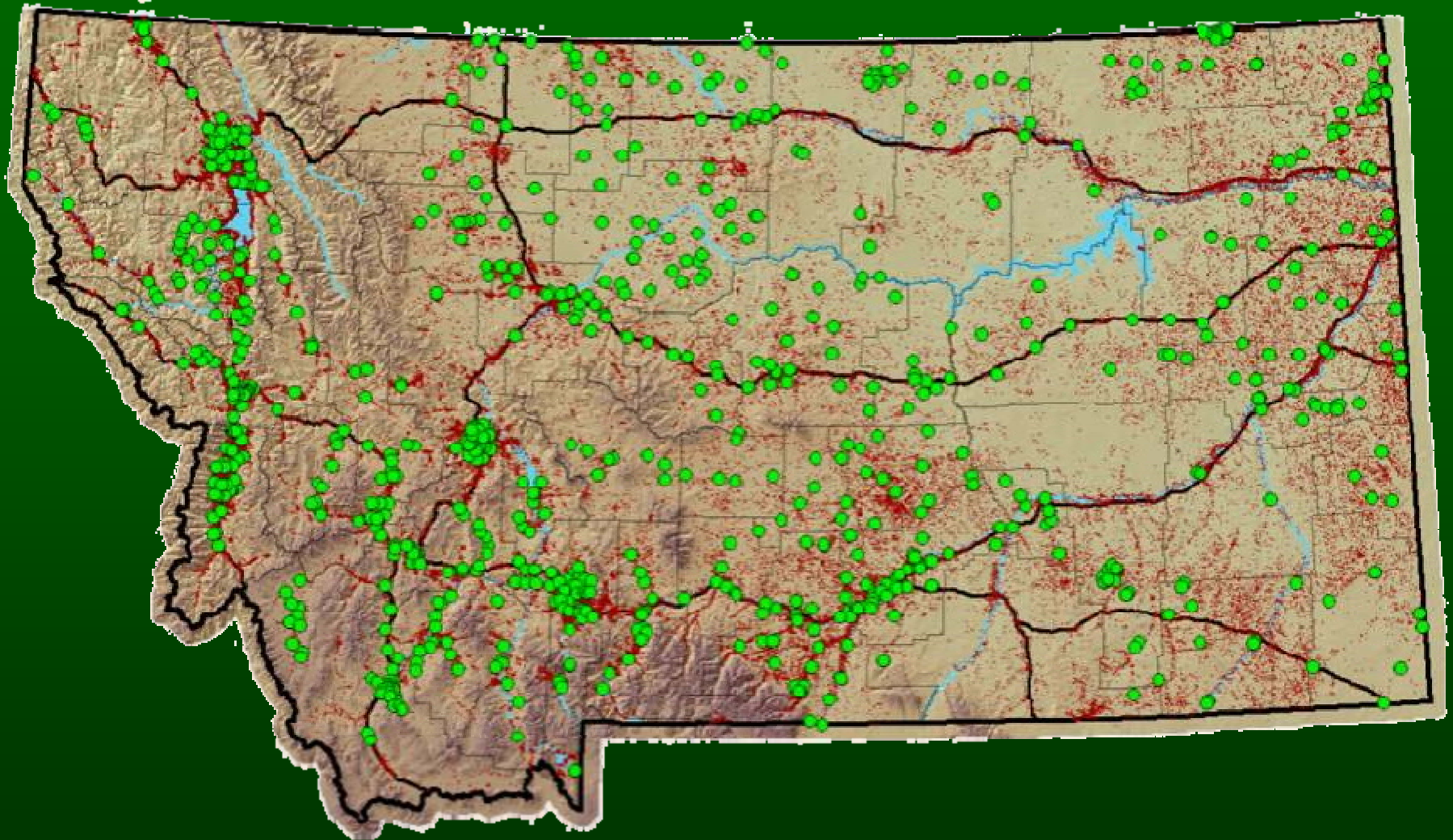


**Well 109142: 07S 01W 23 ABBA-  
Madison County**



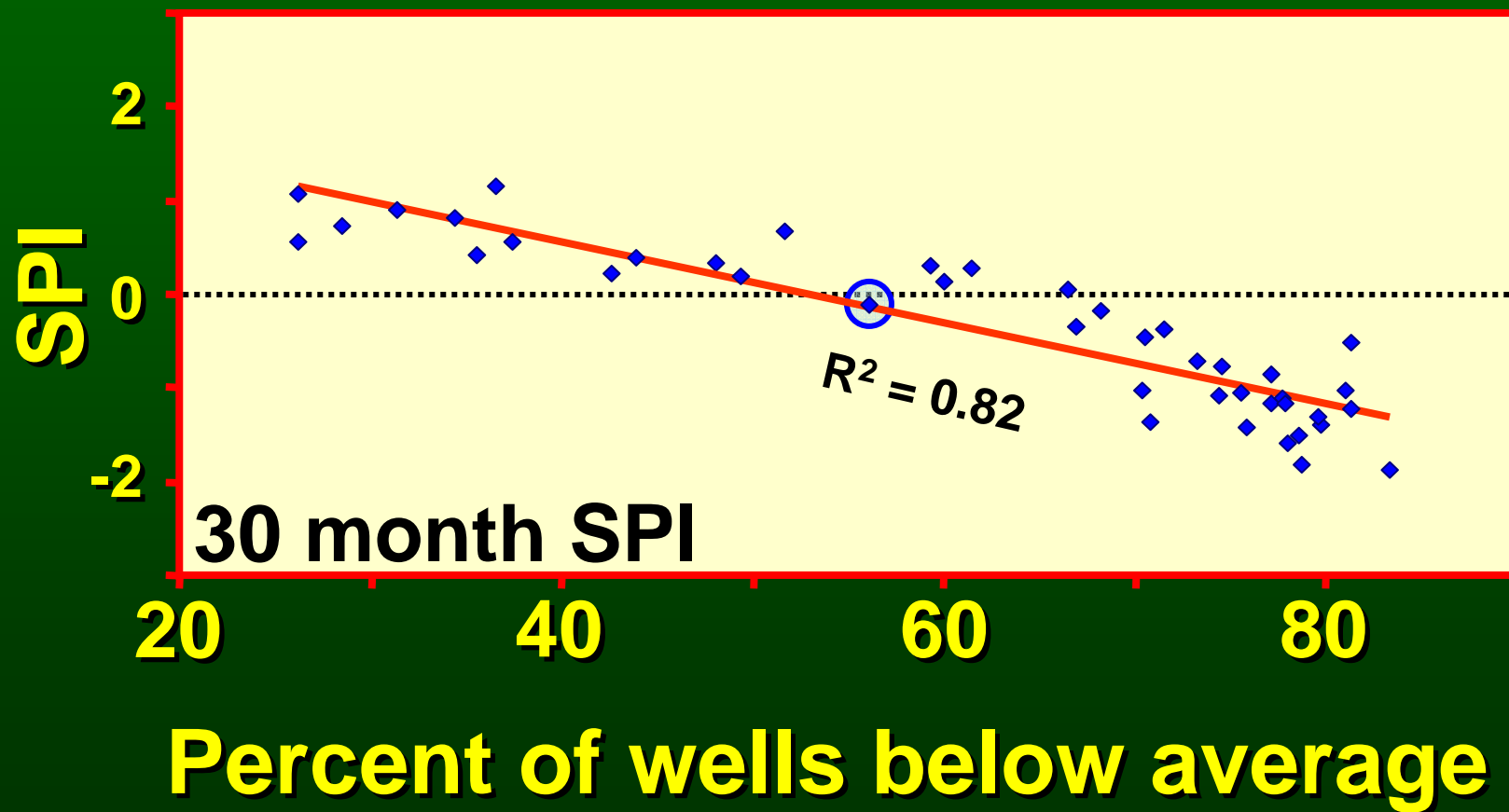
**Tom Patton**  
**August 17, 2006**

# Ground-Water Monitoring

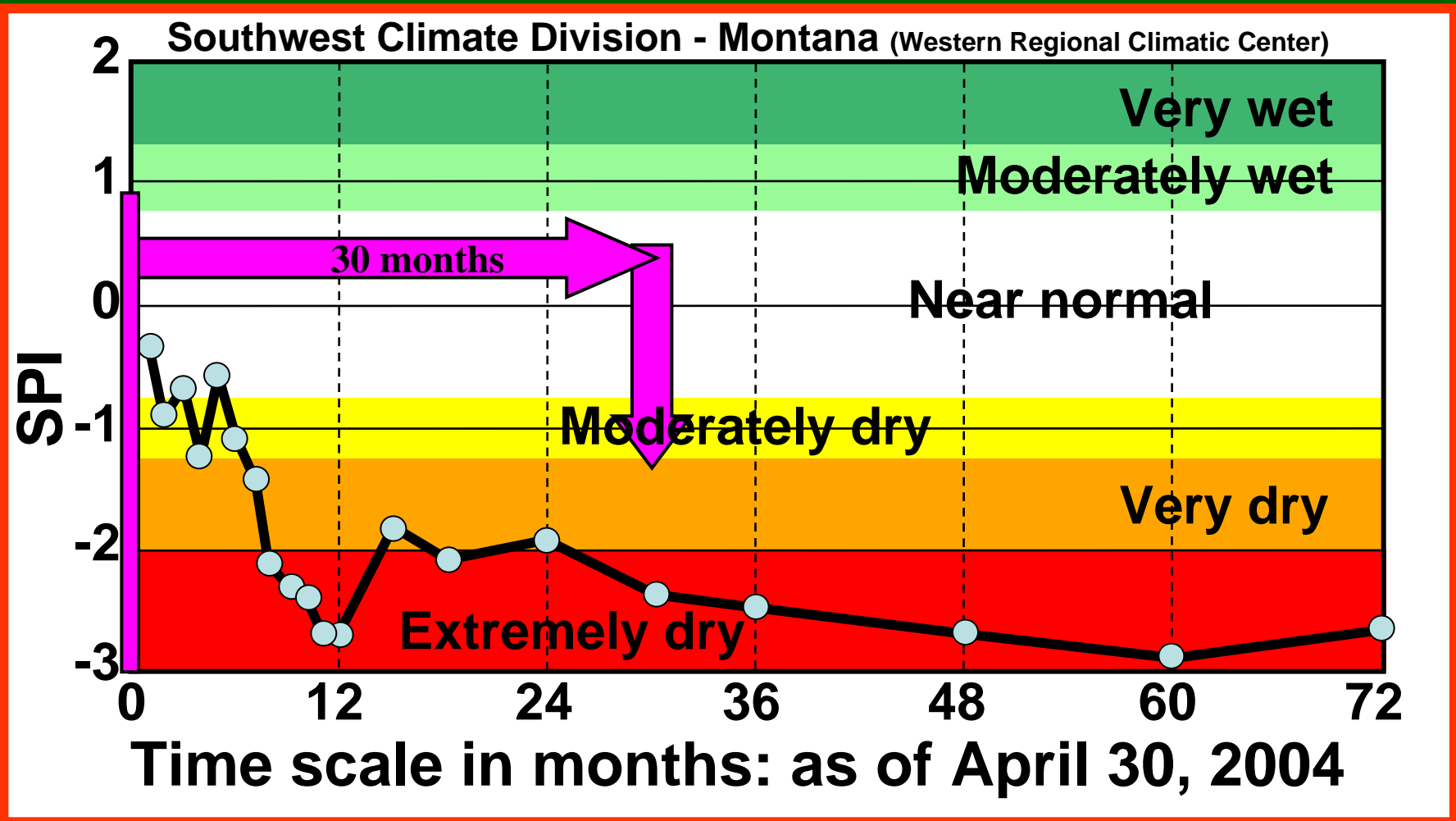


**916 monitoring wells. About 30 percent (300+/-)  
dedicated or unused wells: 105 instrumented wells.**

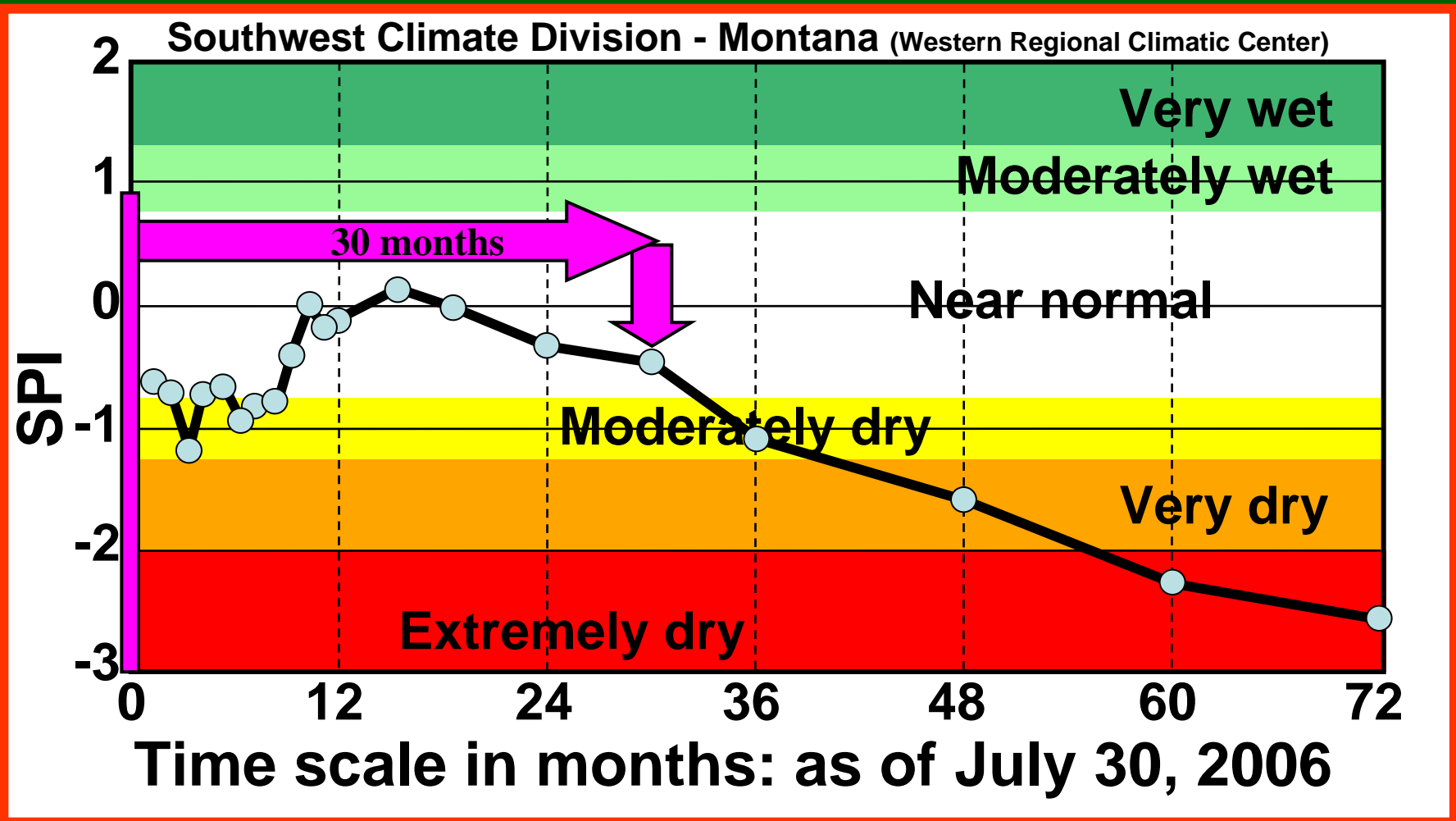
# Negative water-level departures and SPI – climate wells



# Standardized Precipitation Index: April 2004

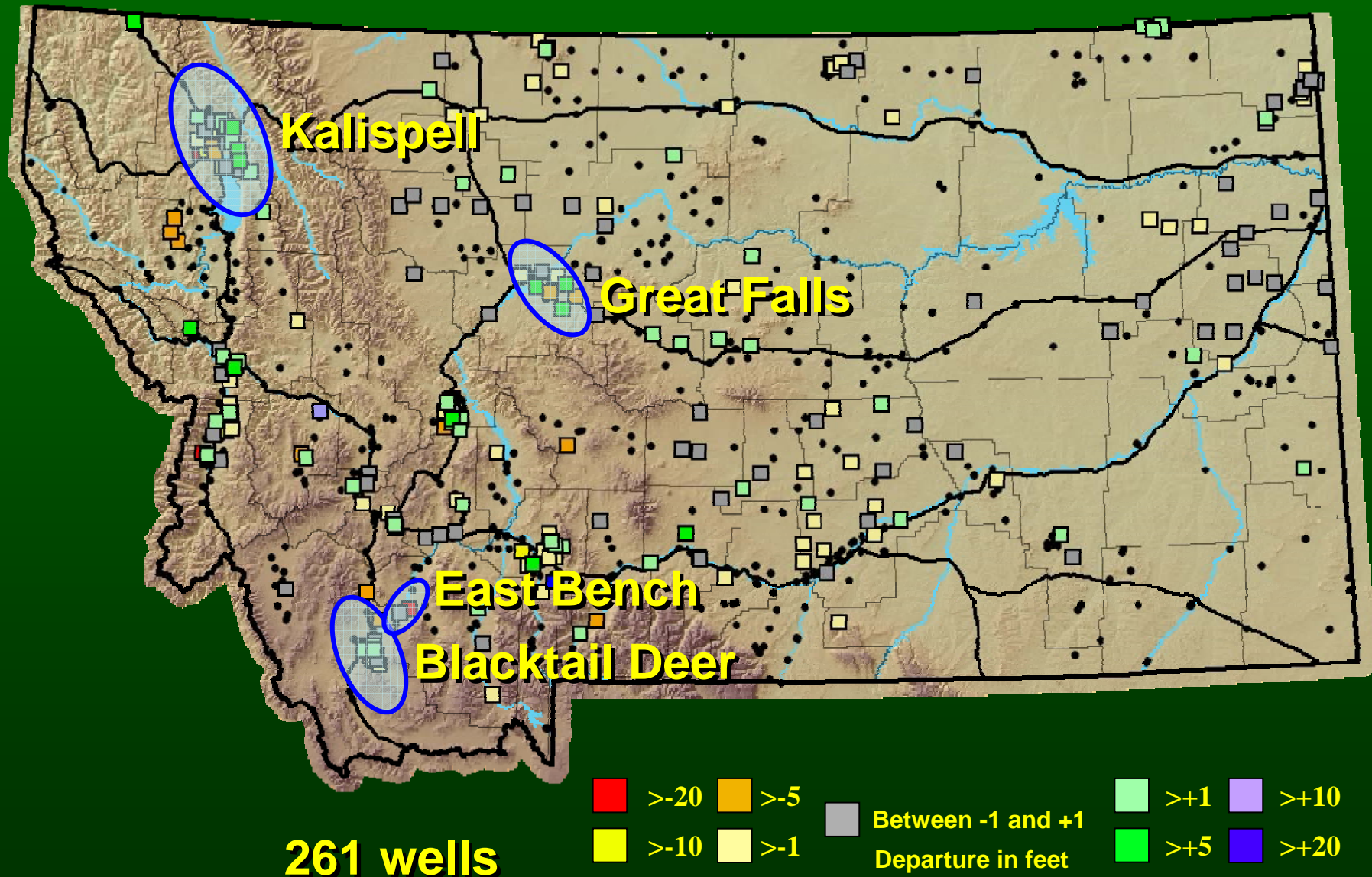


# Standardized Precipitation Index: July 2006



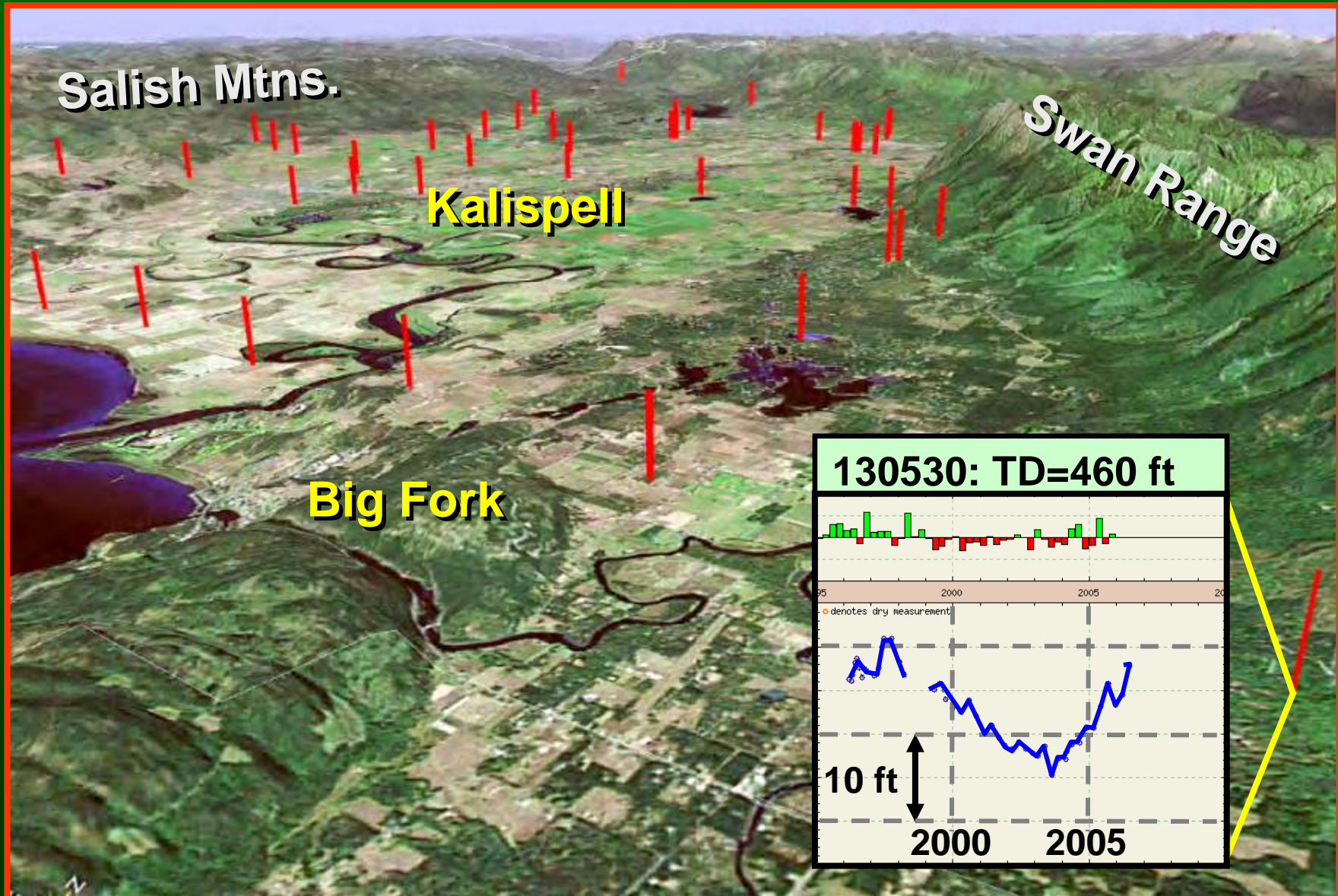


# April-June 2006 departures from average water levels – climate wells



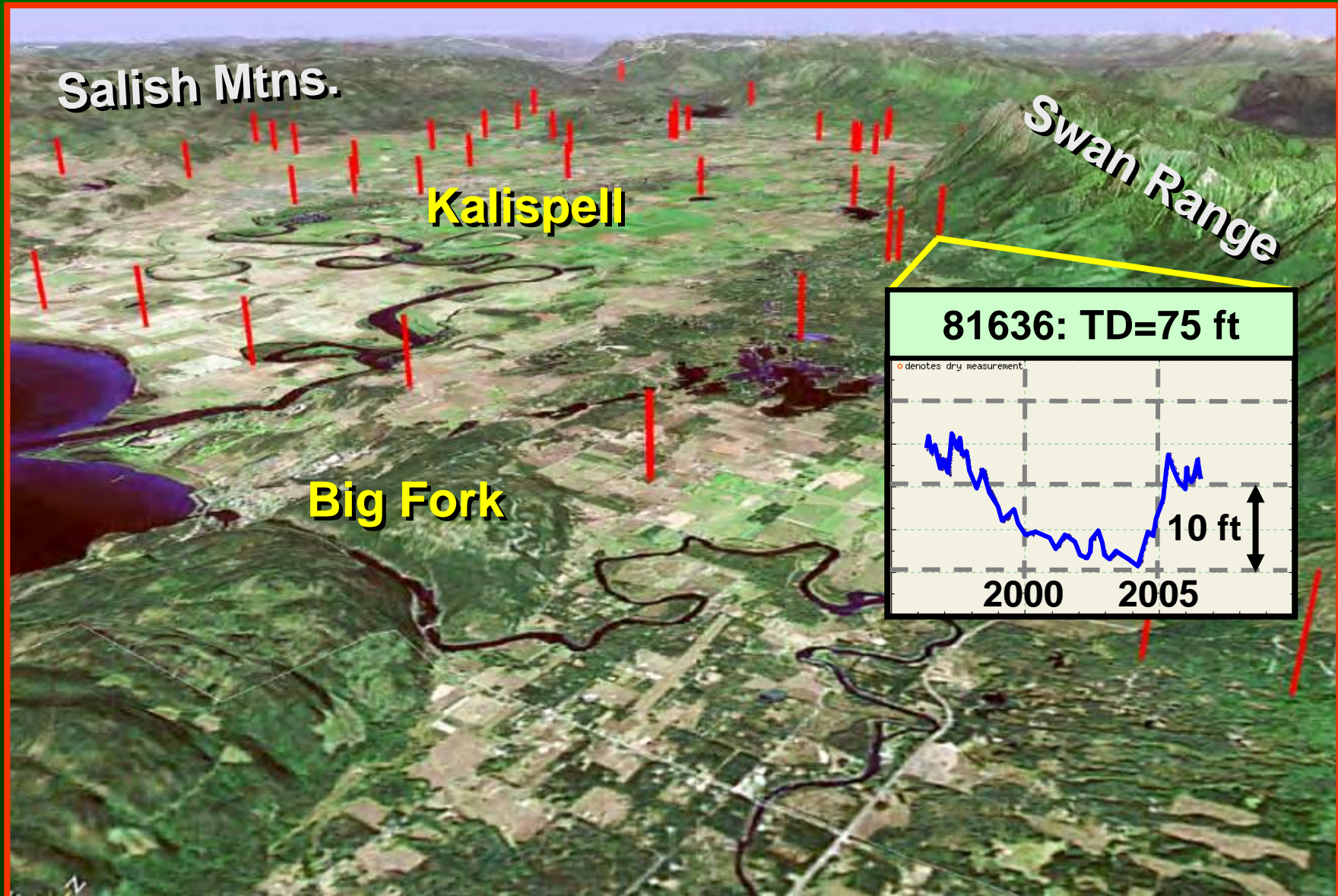


# Flathead valley monitoring



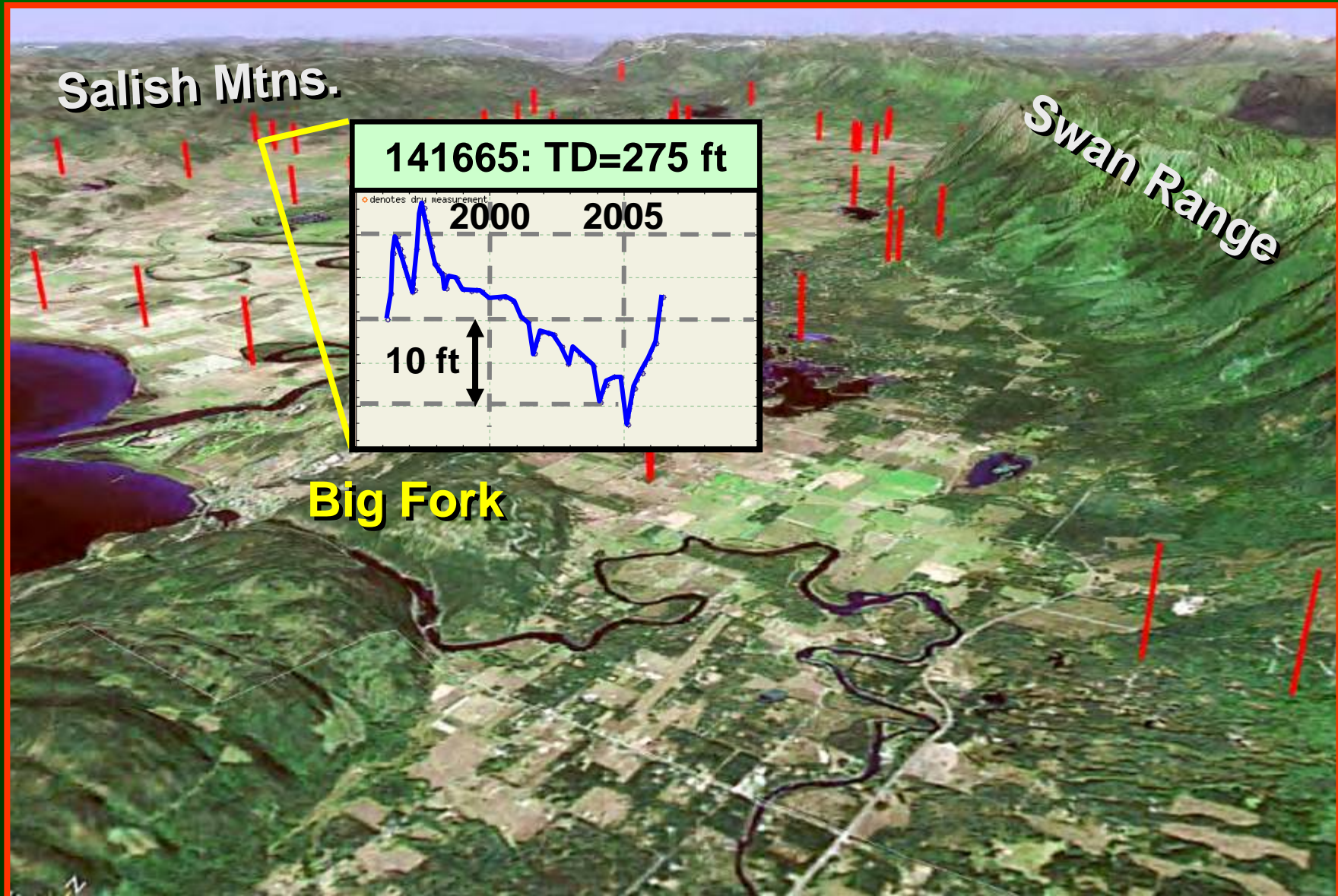


# Flathead valley monitoring



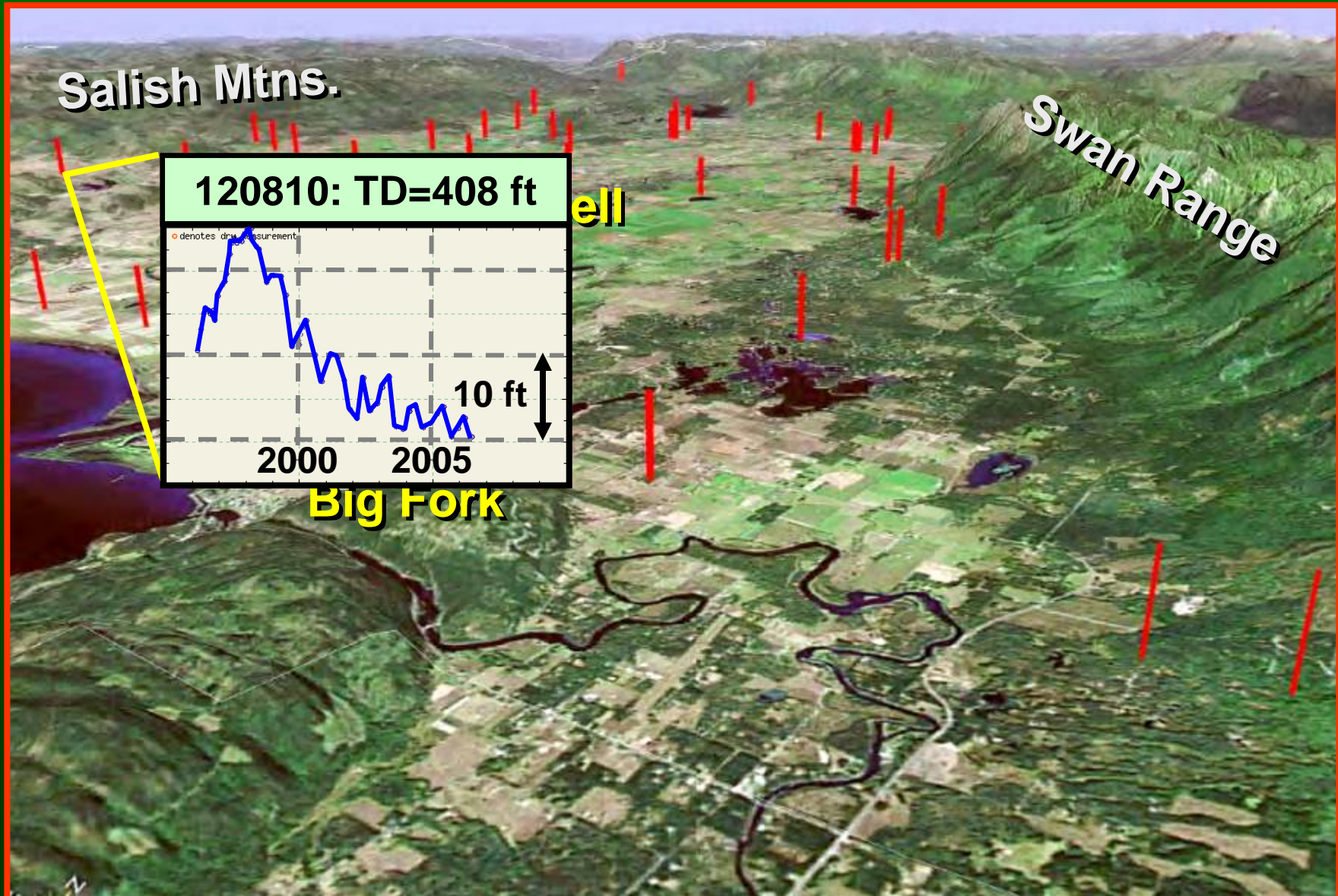


# Flathead valley monitoring



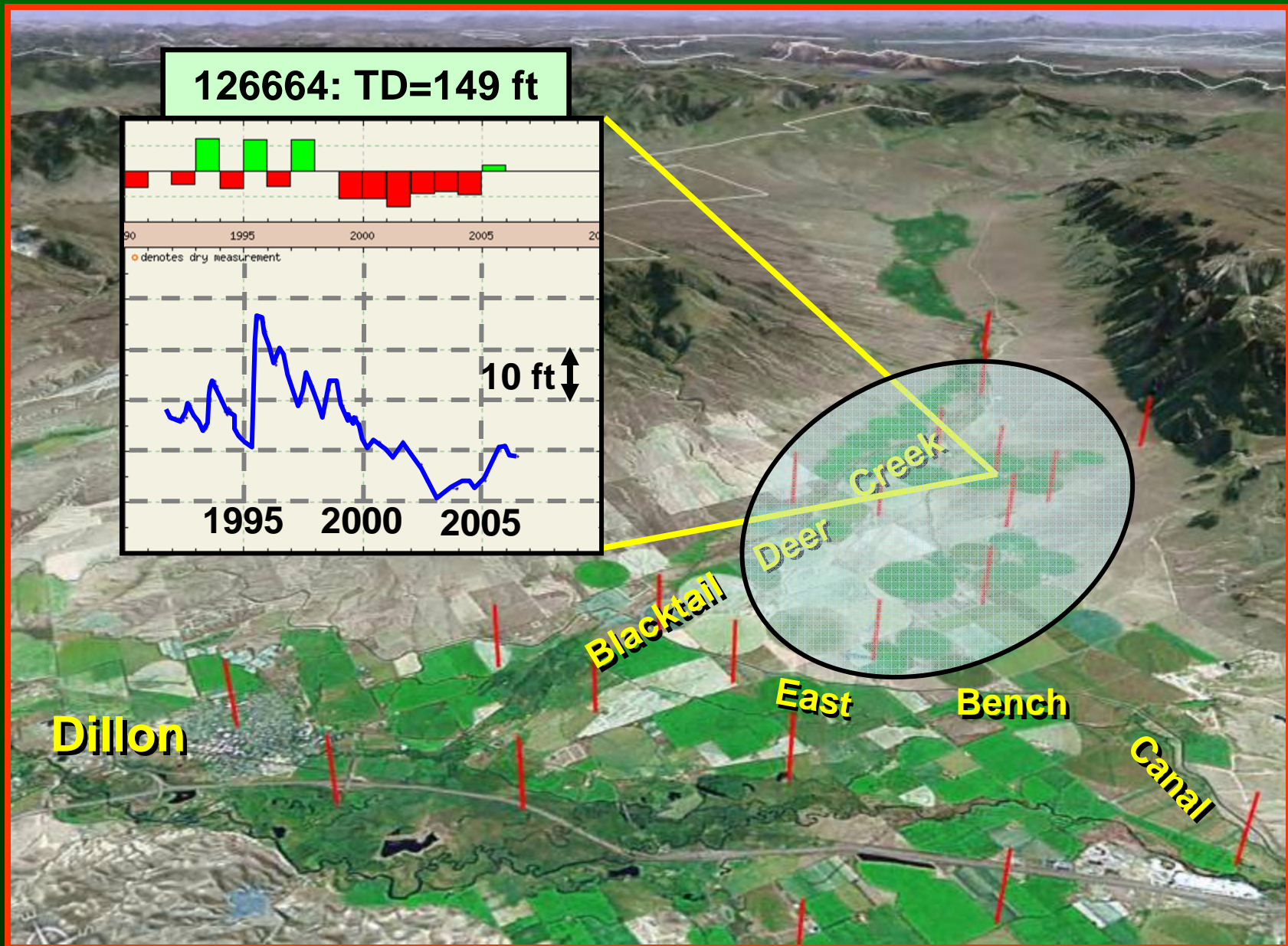


# Flathead valley monitoring



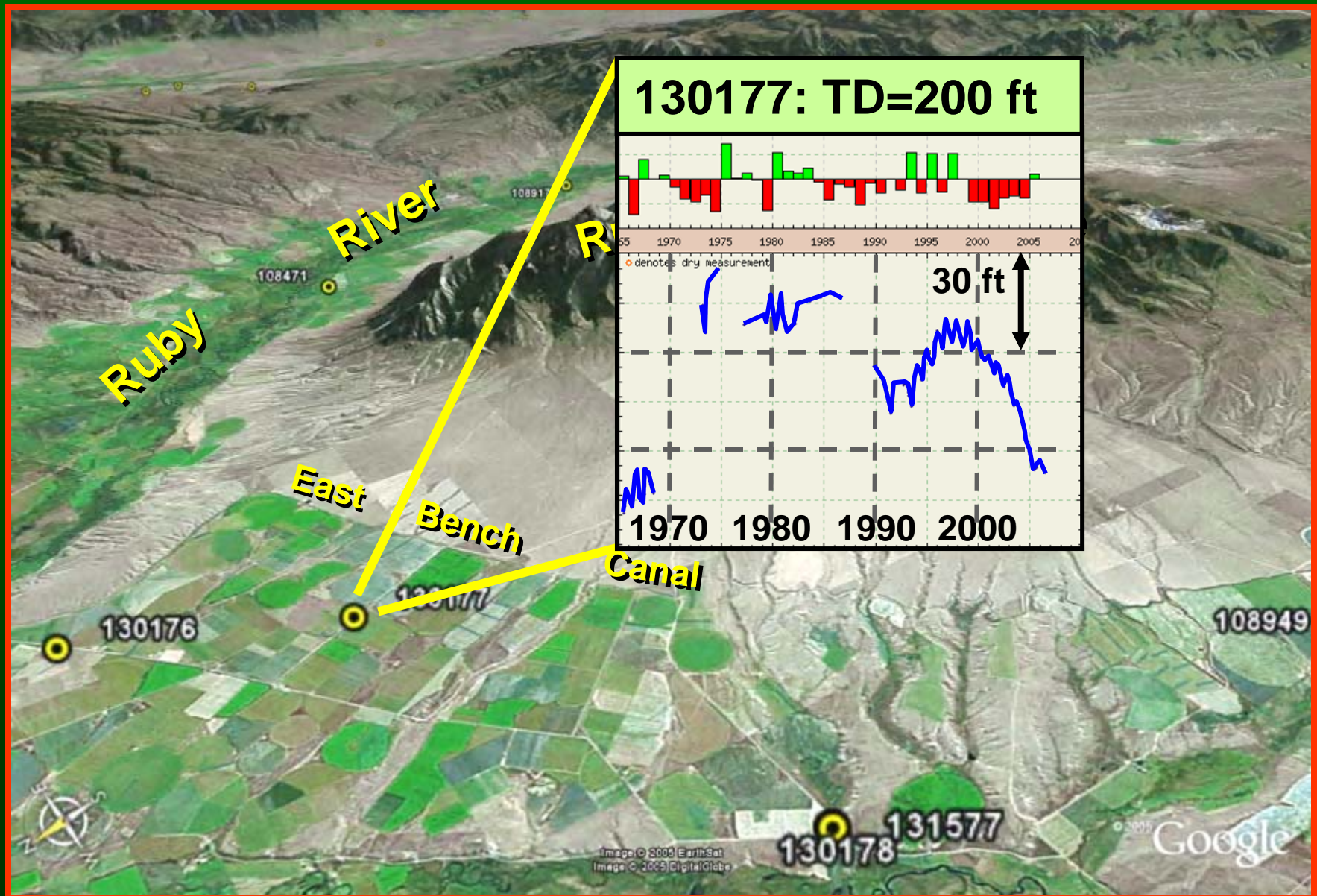


# Blacktail Deer Creek



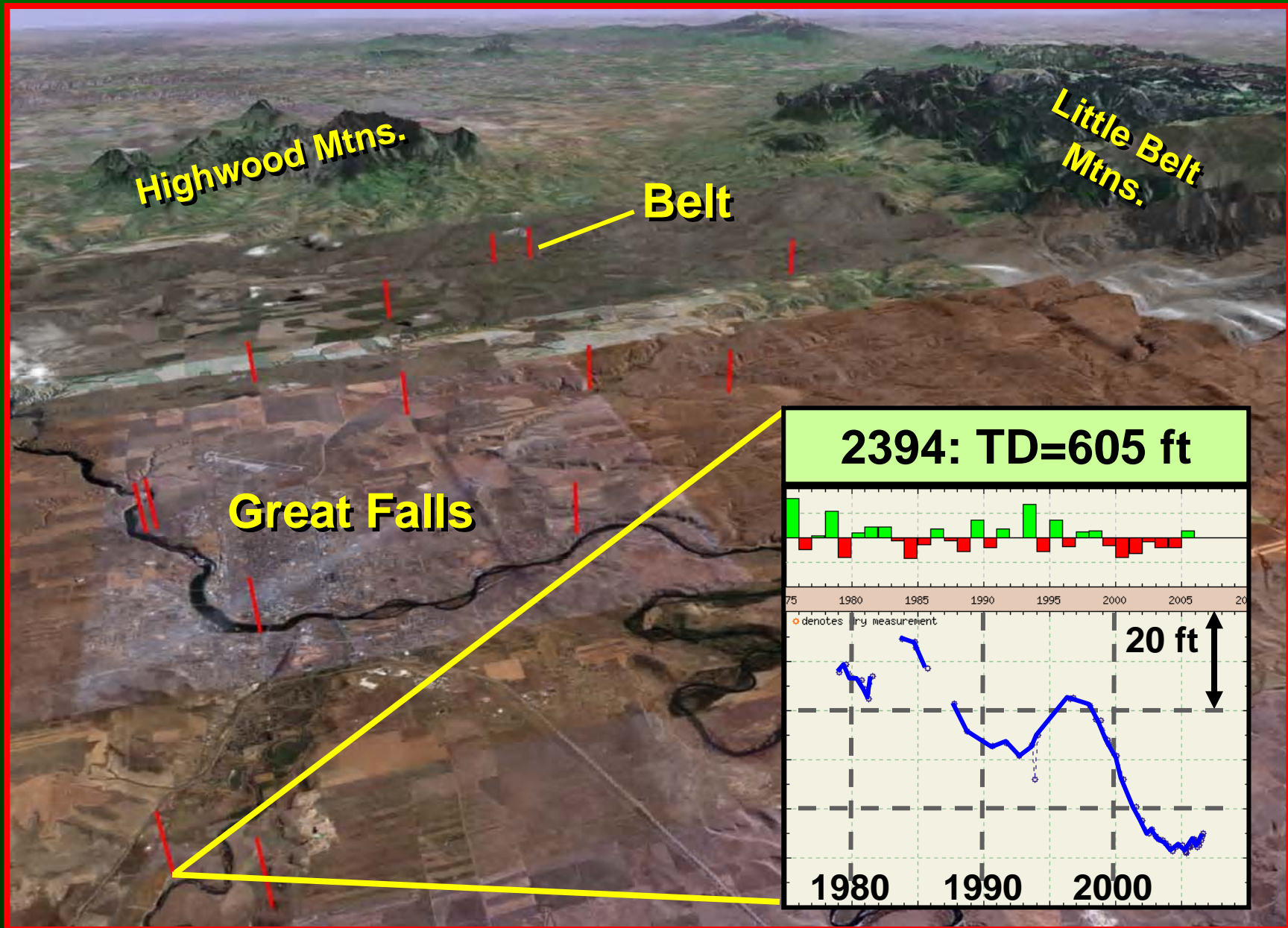


# East Bench monitoring

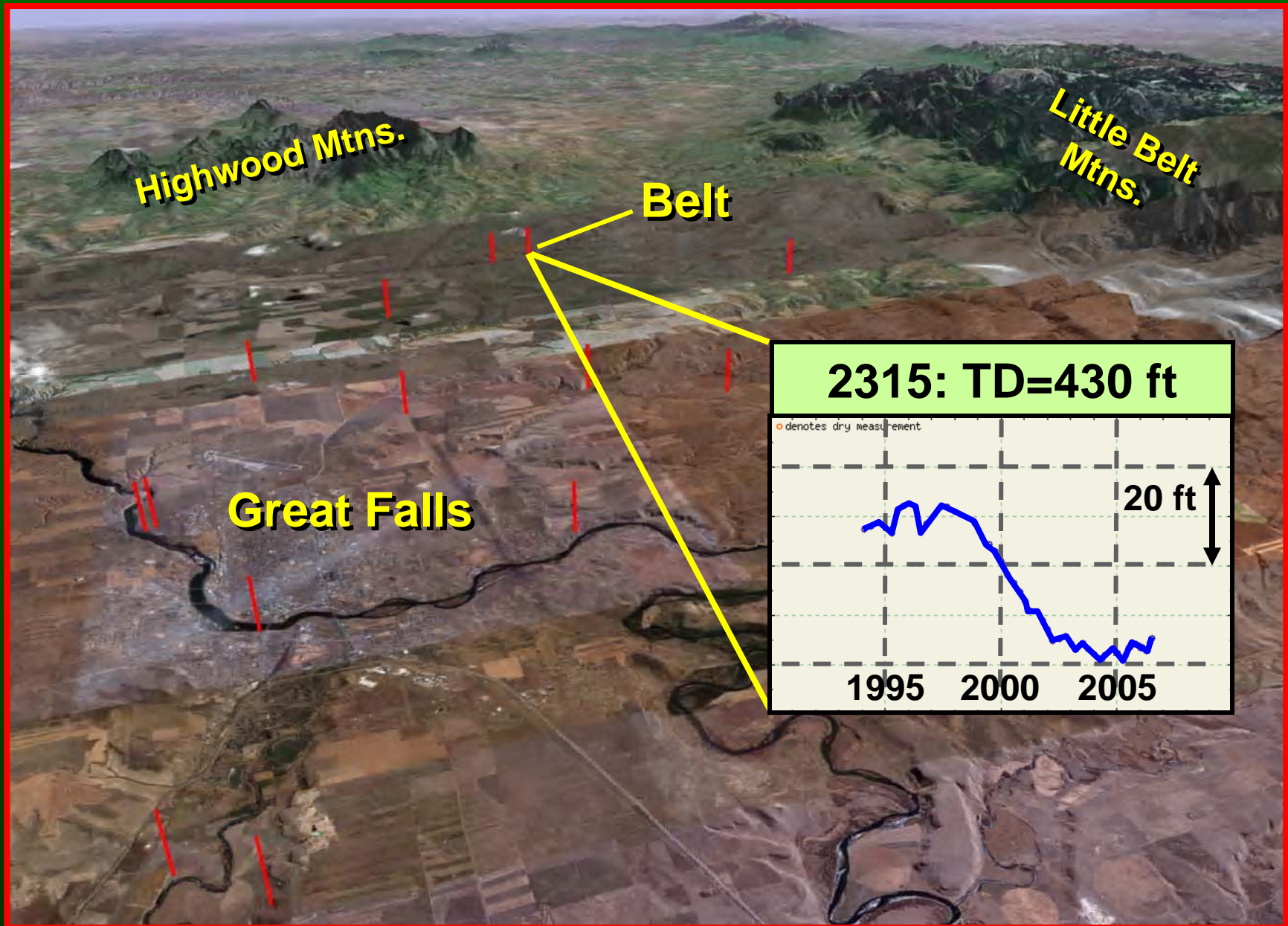




# Madison Limestone

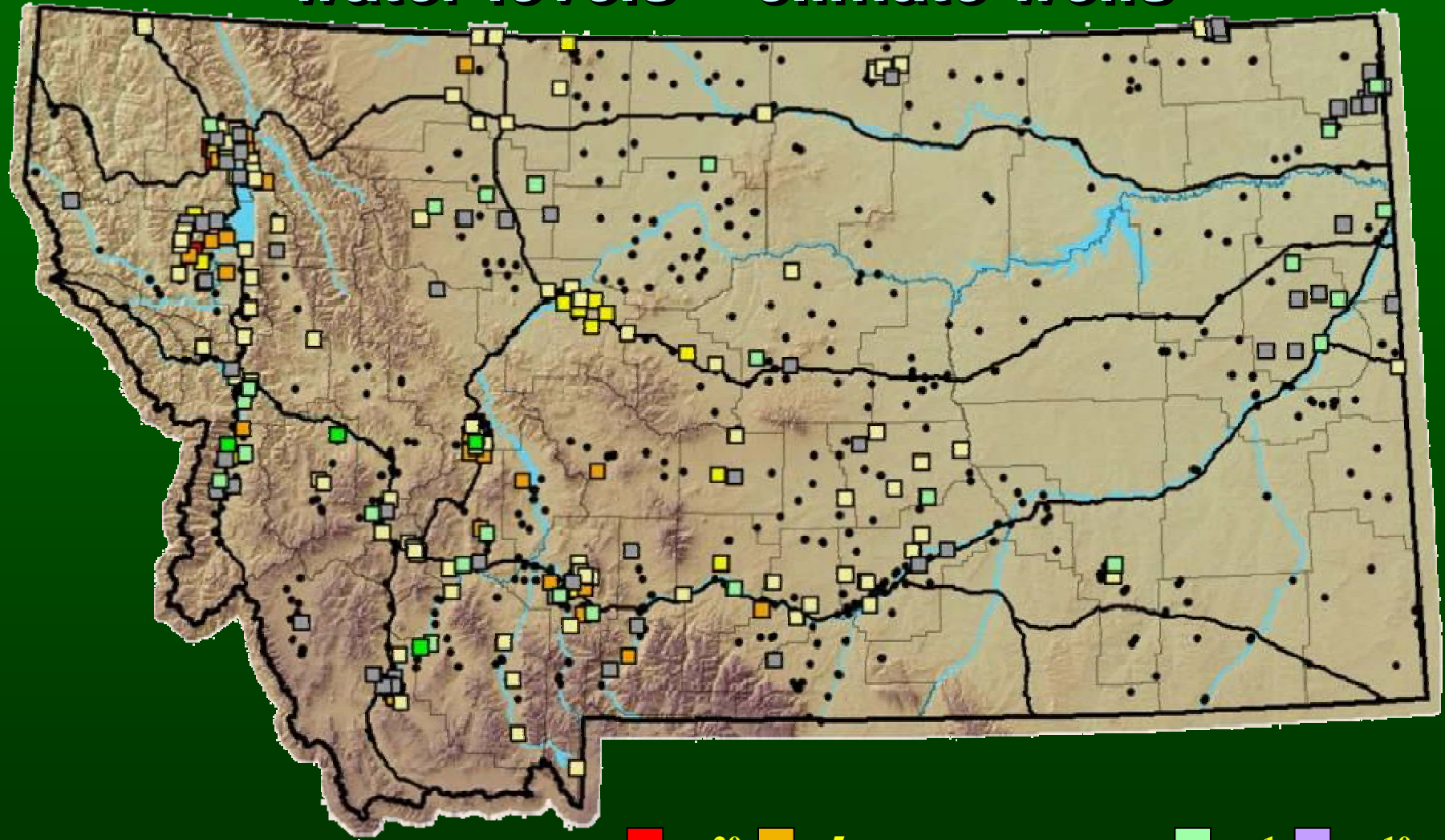


# Madison Limestone





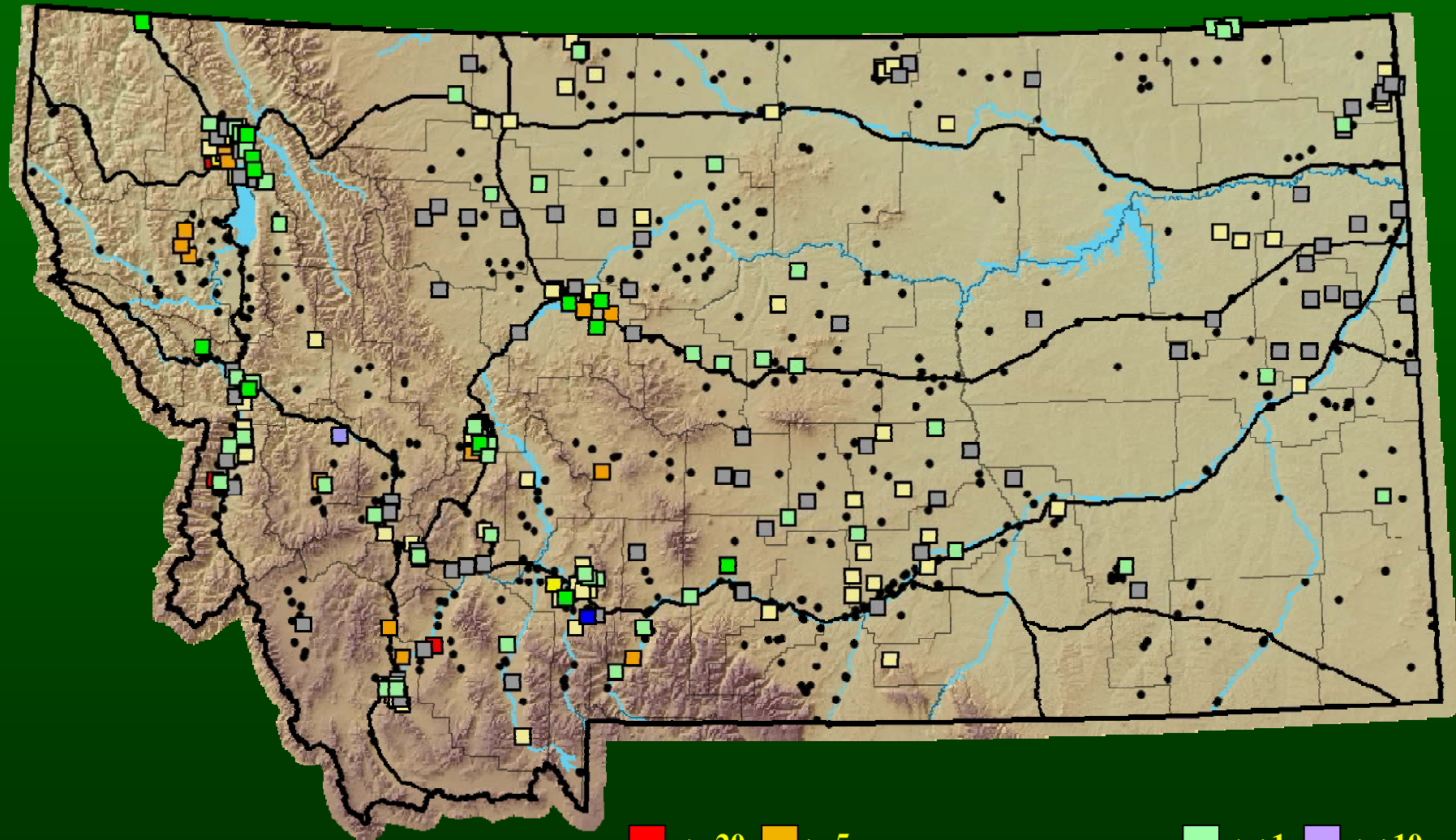
# April-June 2002 departures from average water levels – climate wells



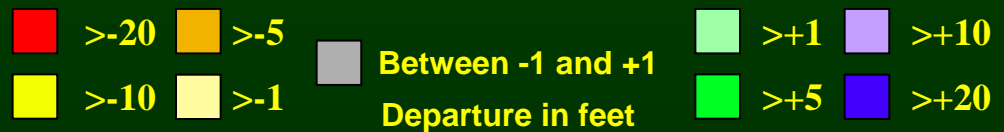
**255 wells**

Departure in feet

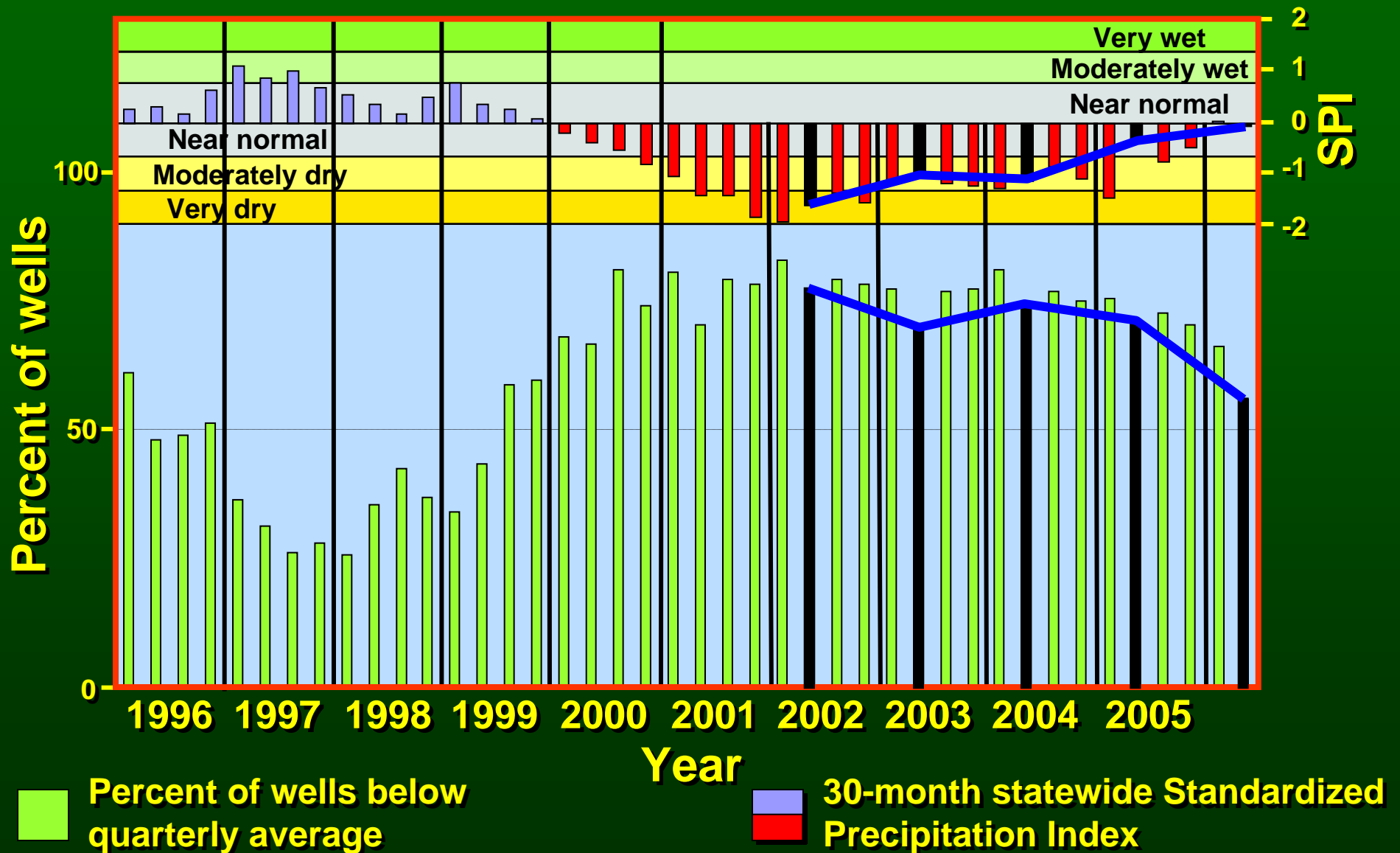
# April-June 2006 departures from average water levels – climate wells



**261 wells**

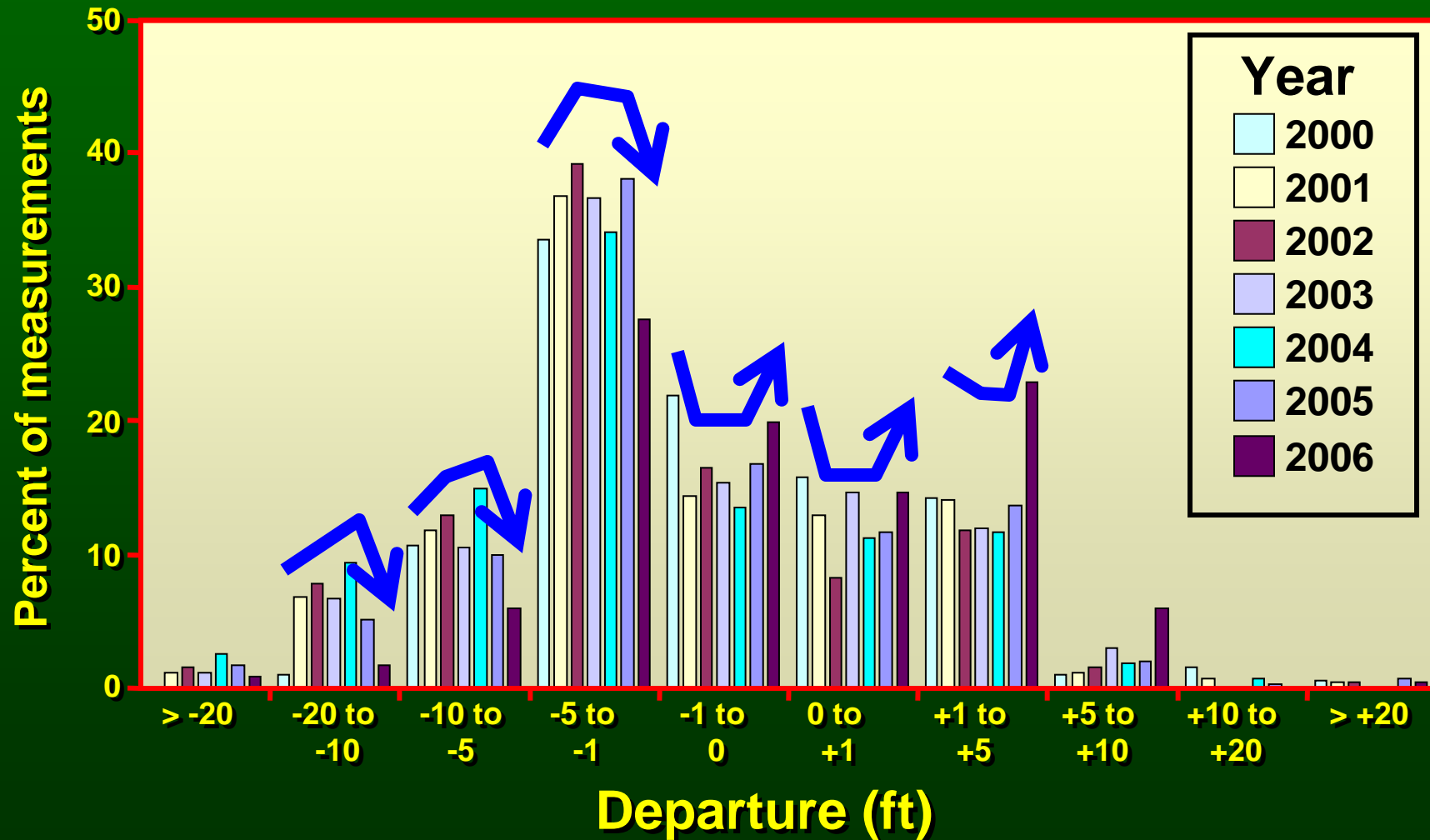


# Departures from quarterly average water level: climate sensitive wells





# Departure frequencies from average water levels: April-June 2000-2006



# Summary

## **Water levels in monitoring network:**

- **React to climate by generally rising or falling depending on how wet or dry it has been for the preceding 30+/- months.**
- **Significant recovery has occurred in some areas such as the Kalispell Valley.**

# Ground-Water Information Center

Montana's Ground-Water Information Center 2006 - Microsoft Internet Explorer

File Edit

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Address

**http://mbmggwic.mtech.edu**

Canon Easy-WebPrint Print High Speed Print Preview Options View Print List McAfee VirusScan

Ground-Water Information Center  
Montana Bureau of Mines and Geology  
Montana Tech of The University of Montana  
1300 West Park Street - Main Hall 314  
Butte Montana 59701-8997


8/15/2006

**mbmggwic**

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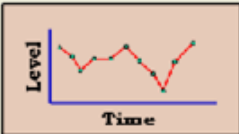
### Water Level Monitoring [more reports](#)

[Download](#) an Adobe Acrobat file that discusses how aquifers respond to climatic conditions. The document also includes statistics about how wells in Montana's statewide monitoring network are responding to the current drought. **Updated to March 2005 (3.8 MB).**



### Statewide Monitoring Network

GWIC features current hydrographs for wells that are being measured regularly by MBMG and its cooperators. Click the picture to the left to view data collected by the Statewide Monitoring Program. Data from other MBMG projects are available through the [SWL Menu](#) after you sign in.



[View a list](#) of statewide monitoring network wells. The listing is by number of wells per county.

### Sign In Status: Signed Out


Enter your User Id and Proposed Data Use. Click **Sign In** to access GWIC's online services.

If you do not have a User Id, click [create one here](#).

User Id:

Data Use:

### Coalbed Methane GW Monitoring Network



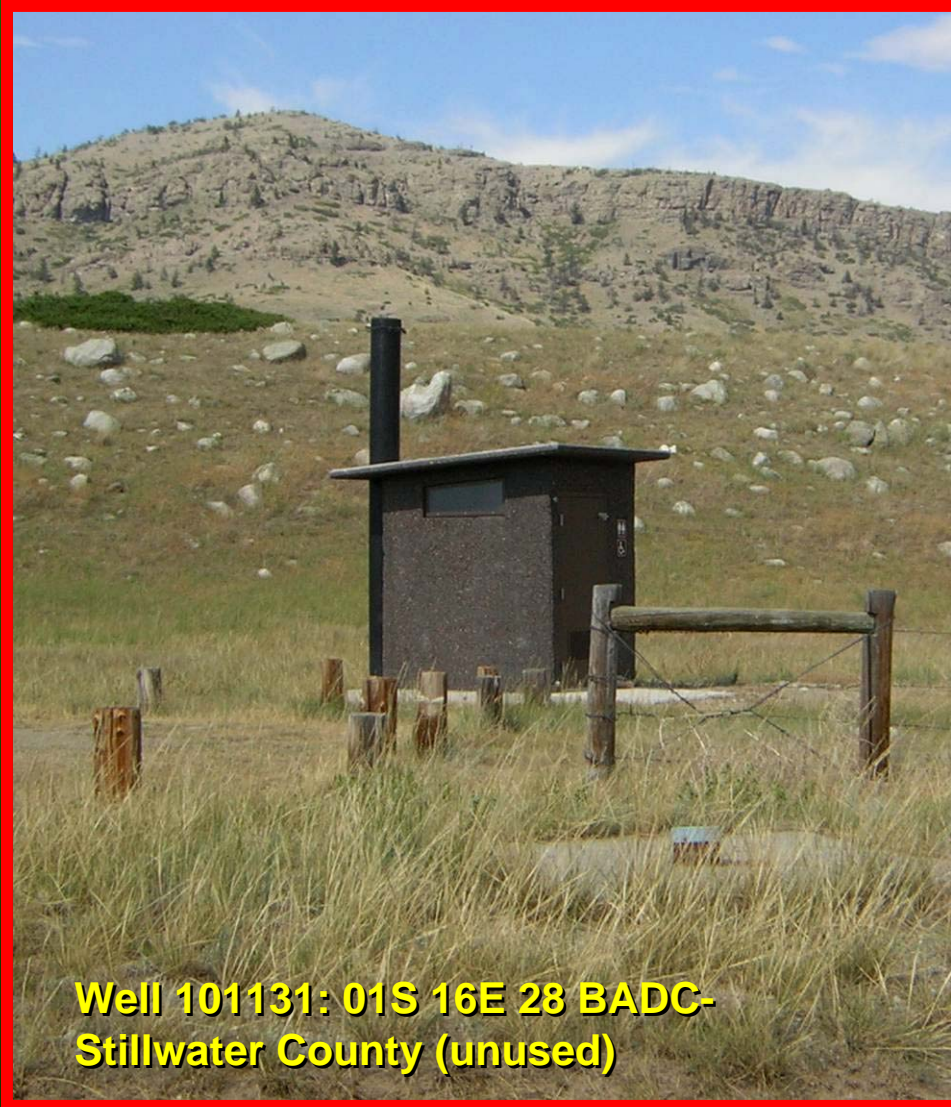
MBMG operates the Montana Powder River Regional Coalbed methane ground-water monitoring network of springs and wells. Data for this program plus site specific research such as coalbed methane infiltration and studies can be



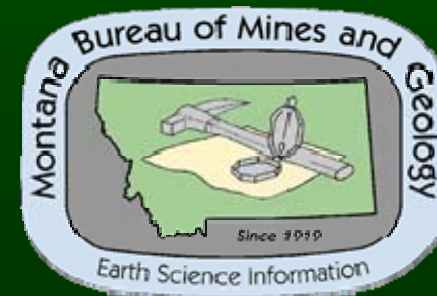
# Montana Ground- Water Assessment

Tom Patton

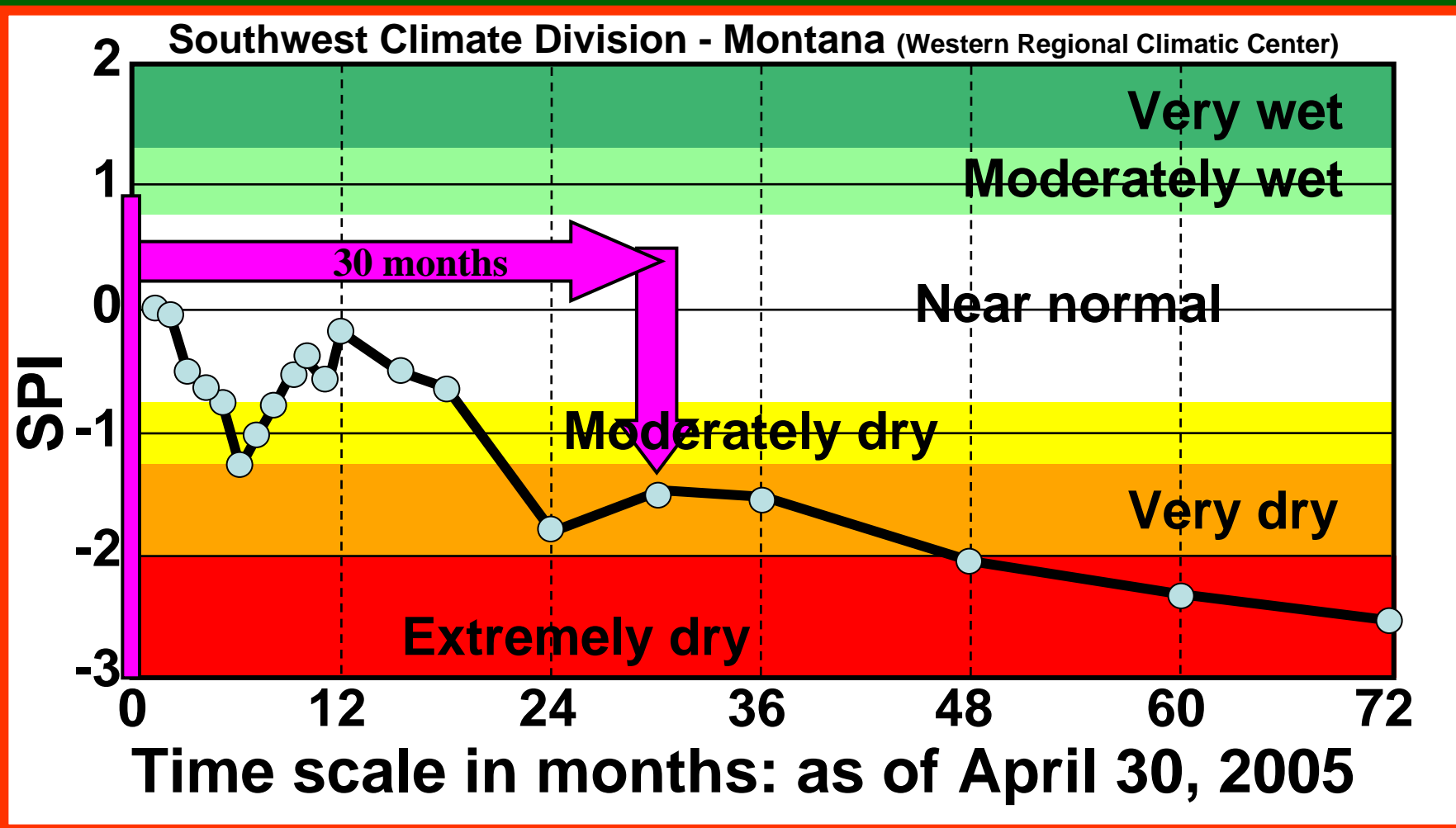
August 17, 2006



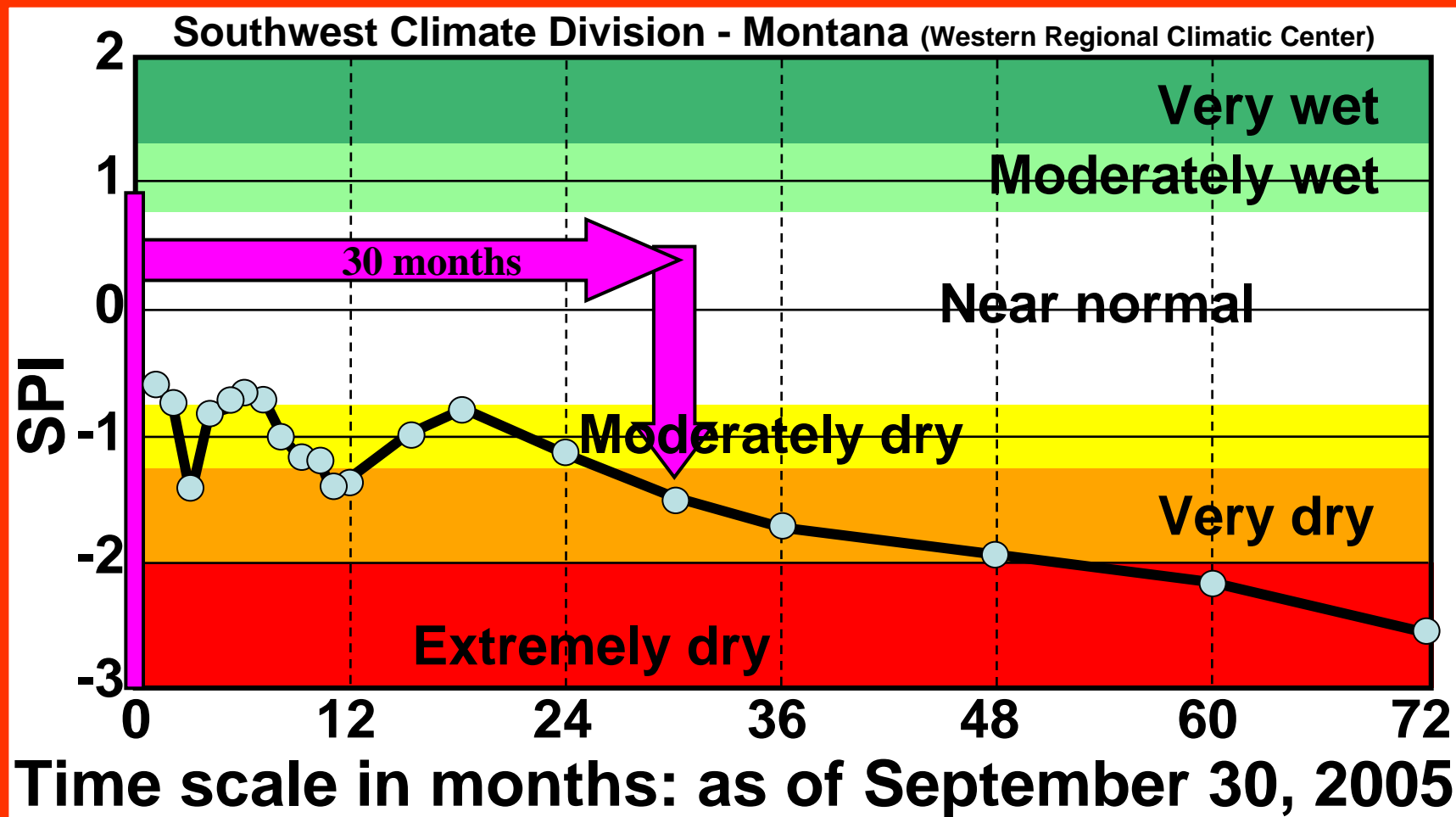
**Well 101131: 01S 16E 28 BADC-  
Stillwater County (unused)**



# Standardized Precipitation Index: April 2005

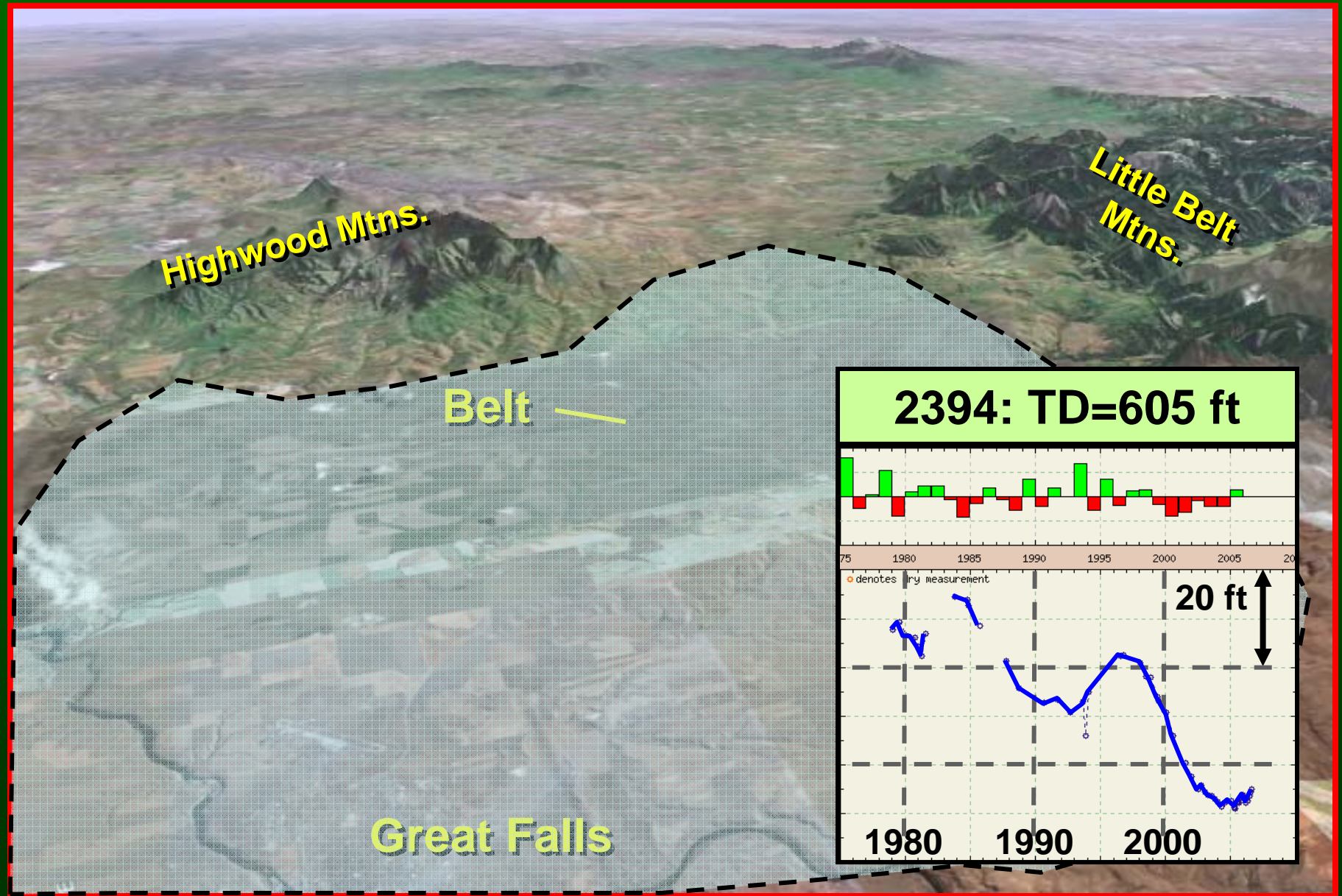


# Standardized Precipitation Index: September 2005





# Madison Limestone





# Flathead valley monitoring

